

December 2004

BAW76 Small Signal Diode



DO-35 Color Band Denotes Cathode

Absolute Maximum Ratings * T_a = 25°C unless otherwise noted

| Symbol | Parameter | Value | Unit | |
|--------------------|--|-------------|--------|--|
| V _{RRM} | Maximum Repetitive Reverse Voltage | 75 | V | |
| I _{F(AV)} | Average Rectified Forward Current | 300 | mA | |
| I _{FSM} | Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond | 1.0 4.0 | A A | |
| T _{STG} | Storage Temperature Range | -65 to +200 | °C | |
| TJ | Operating Junction Temperature | 175 | °C | |

* These ratings are limiting values above which the serviceability of the diode may be impaired.

NOTES:

1) These ratings are based on a maximum junction temperature of 200 degrees C.

2) These are steady limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics

| Symbol | Parameter | Value | Unit |
|----------------|---|-------|------|
| PD | Power Dissipation | 500 | mW |
| R_{\thetaJA} | Thermal Resistance, Junction to Ambient | 300 | °C/W |

Electrical Characteristics T_c = 25°C unless otherwise noted

| Symbol | Parameter | Conditions | Min. | Max | Units |
|-----------------|-----------------------|--|------|------------|----------|
| V _R | Breakdown Voltage | $I_R = 5\mu A$ | 75 | | V |
| V _F | Forward Voltage | I _F = 100mA | | 1.0 | V |
| I _R | Reverse Leakage | V _R = 50V V _R = 50V, T _A = 150°C | | 100 100 | nA μA |
| C _T | Total Capacitance | V _R = 0, f = 1.0MHz | | 2 | pF |
| t _{rr} | Reverse Recovery Time | $I_F = 10$ mA, $V_R = 6.0$ V $R_L = 100\Omega$, $I_{rr} = 1$ mA $I_F = I_R = 10$ mA, $I_{rr} = 1.0$ mA, | | 2 | ns |
| | | $I_F = I_R = 10$ mA, $I_{rr} = 1.0$ mA, $R_L = 100\Omega$ | | 4 | ns |

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